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FEDERAL COMMUNICATIONS COMMISSION  
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FEDERAL COMMUNICATIONS COMMISSION  
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In the Matter of )

Advanced Television Systems )  
and Their Impact Upon the )  
Existing Television Broadcast )  
Service )

MM Docket No. 87-268

**COMMENTS OF CONSUMER FEDERATION OF AMERICA  
AND MEDIA ACCESS PROJECT**

Consumer Federation of America and Media Access Project ("CFA/MAP") respectfully submit these comments in response to the *Fifth Further Notice of Proposed Rulemaking*, FCC 96-207 (Released May 20, 1996) ("*Fifth NOPR*") in the above referenced docket. In the *Fifth NOPR*, the Commission proposes adopting the digital television standard recommended by the Advisory Committee on Advanced Television Service ("ACATS"), in large part because of the eight years of effort ACATS has put into the standard, and the money that has been spent to develop it by the broadcasting and consumer electronics industries. *Fifth NOPR* at ¶¶ 3-7, 49, 54.

But these are not the factors upon which the Commission should base its decision. The Commission's overriding consideration in choosing a standard for digital television must be what will best serve the public's interest.<sup>1</sup>

CFA/MAP believe that the public interest will best be served if the Commission adopts a digital television standard that 1) reduces the cost of digital receivers and converters and 2) permits the convergence of video and computer technologies. Adoption of such a standard will,

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<sup>1</sup>It bears repeating that the ACATS membership did not include even one representative of the public - thus, this is the only opportunity members of the public have had to have input into the adoption of a digital television standard.

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in turn, accelerate the transition to digital television and facilitate universal access to advanced telecommunications technologies. The latter goal resides at the very core of the Telecommunications Act of 1996.

For the reasons discussed below, the progressive base-line digital television standard endorsed by Computer Industry Coalition on Advanced Television Service ("CICATS") is undoubtedly better able to accomplish these goals than can the ACATS standard.

**I. The Commission Should Mandate a Progressive, Base-Line Standard For Digital Television.**

The Commission rightfully notes the conflicting goals it must accommodate in choosing whether to mandate a standard for digital television. *Fifth NOPR* at ¶29. On the one hand, broadcast television is unique among telecommunications services because it is a free and universally available source of news and information for the American public. To retain this vital service, the Commission must ensure that viewers are not left with unusable receivers. *Fifth NOPR* at ¶32. On the other hand, mandating a standard might stifle technological innovation or reduce some forms of competition. *Fifth NOPR* at ¶33-35.

Mandating the progressive, base-line digital standard endorsed by CICATS appears to strike the right balance between these two concerns. Adoption of the CICATS standard will eliminate the risk that the new equipment will become obsolete because manufacturers have not settled on one standard. Thus, it will ensure that all Americans will continue to have access to free, over-the-air television.

The progressive base-line standard proposed by CICATS also permits a great deal of technological flexibility: because formats of greater resolution can be layered on top of the base-line standard, enhancements may develop as the market dictates. By contrast, the ACATS standard

consists of 18 formats and provides for few, if any, changes. Importantly, the CICATS system will readily accommodate each and every one of the 14 progressive display formats ACATS has proposed.

## **II. The Progressive Base-Line Standard will Facilitate Widespread Access to Advanced Telecommunications Services - A Core Goal of the Telecommunications Act of 1996.**

In enacting the Telecommunications Act of 1996, Congress made clear that one of its overriding goals is to ensure the widespread availability of advanced telecommunications into every home, school, library and hospital. Telecommunications Act of 1996, P.L. 104-104, §254 ("1996 Telecommunications Act"). Congress recognized that the convergence of video, voice and computer technologies will change the very meaning of universal service. Once limited to the ability to make a phone call, universal service now encompasses newer technologies that have become the means to participate in democratic processes, the economic marketplace and in social and cultural activities for the foreseeable future.

Congress also recognized that universal service will be advanced by increasing competition between consumer electronics manufacturers. Thus, Section 304 of the Act directs the Commission to adopt regulations to ensure the competitive availability of "converter boxes, interactive communications equipment, and other services offered over multichannel video programming systems." 1996 Telecommunications Act §304.

This proceeding provides the Commission with a once-in-a-lifetime opportunity to promote simple, lower cost access to new technologies by ensuring that one box is capable of receiving both television and computer transmissions. Imagine the savings to schools, libraries, hospitals and every American citizen, if they could combine their video and computer needs! Indeed, in light of the fact that any Commission decision to grant spectrum for conversion to digital tele-

vision will necessitate that every American buy one, or more likely several, new television receivers, the Commission has a duty to lighten the burden on consumers by ensuring that digital receivers can also be used with computer technology.

At this time, only the CICATS base-line standard is capable of this convergence. The ACATS standard's interlaced scanning formats, pixel spacing and frame rates, whatever their relative merits, make the convergence of computer and television technologies cost-prohibitive. While it is true, as the Commission notes, that technological changes *might* permit the interlaced format to one day migrate to progressive, *Fifth NOPR* at ¶50, that day may never come, leaving Americans to buy two separate boxes instead of one, multipurpose box.

The Commission should be extremely wary of unsubstantiated promises whenever they are based on assumptions about future technologies. Over the last decade, numerous well-intentioned projects have not succeeded, or have emerged in greatly modified form. There is, and can be, no assurance that ACATS will one day migrate its interlaced scanning formats to progressive. And, absent enforceable provisions or conditions, there is considerable incentive not to keep such promises. This is because inclusion of interlaced formats in the ACATS standard is not a mere technological matter. For example, virtually all current inventories of broadcast programming are in interlaced format, and broadcasters are disinclined to spend the money to convert their transmissions to progressive. In addition, the inclusion of an interlaced format effectively insulates incumbent television manufacturers from new competition in the manufacture of receivers. This runs directly contrary to Congress' goal of ensuring that "consumers are not forced to purchase or lease a specific, proprietary converter box, interactive device or other equipment...." H.R. Conf. Rep. at 65.

There appears to be little disagreement among the parties, or the Commission, that the interoperability that can be provided now by a progressive digital television standard is, in the long run, in the public's best interest. *Fifth NOPR* at ¶¶50, 60. CFA/MAP are puzzled, therefore, that the Commission is seriously considering adopting a digital television standard that could lock out that widespread use of that standard for the next generation.

### **III. The Progressive Base-Line Standard Will Cost Consumers Less, and Thereby Will Accelerate the Transition to Digital Television.**

One of the most troubling issues arising from the policy debate over digital television has been whether and when broadcasters should be required to return the spectrum that they now use for analog transmissions ("analog spectrum"). *Fourth NOPR* at ¶¶55-60. The Commission has expressed concern that the transition to digital not proceed too quickly so as to leave those who cannot immediately afford digital receivers without free, over-the-air television. *Id.* at 37-38. However, the Commission has also expressed the desire that broadcasters make the transition as quickly as possible, so that the "analog" spectrum can be recovered and auctioned.

The record in this proceeding demonstrates that adoption of the CICATS standard will promote a faster, more orderly transition to digital television. Receivers and converter boxes required under the progressive, base-line standard are quite likely to be far less expensive than those under the ACATS standard. See S. Gabriel, "Cost Comparison of ACATS and CICATS Set-top Converters, Receivers and PC Decoders," Exhibit C to Comments of CICATS filed today in this docket.<sup>2</sup> Put in very simple terms, because the ACATS standard consists of 18 dif-

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<sup>2</sup>According to CICATS' analysis, in 1996, a set-top converter box using the CICATS' base-line proposal would cost 63% less (\$500) than its ACATS-ready counterpart (\$1350). In the year 2001, CICATS predicts the cost of an ACATS box will drop to \$300, but the CICATS box will be \$150. And in the year 2003, CICATS predicts that the cost of an ACATS set-top box would

ferent formats, ACATS receivers will necessarily be complex, and probably quite expensive. On the other hand, the CICATS standard uses just one, far simpler format, although it allows for infinite scalability. It goes without saying that the more expensive the consumer electronics equipment, the more reluctant the public will be to buy it. This reluctance will, in turn, delay the transition to digital and vest broadcasters with twelve Megahertz of spectrum for a very long period of time. This not only denies the public the compensation it so richly deserves from the repacking and sale of the returned "analog" spectrum, but also robs the economy of new services that would develop from the spectrum auction.

**IV. The Commission Should Encourage CICATS and ACATS to Resolve Their Technological Differences.**

What is most striking about the debate over the standard for digital television is that there are far more similarities than differences between the two standards. It would appear that there is ample room for discussion and compromise between CICATS and ACATS so that the needs of the members of both groups and those of the public, are met.

But one need not ignore the underlying political reality. For both CICATS and ACATS, this is not really about providing access to new telecommunications services or saving Americans money. Rather, it is about whether either television manufacturers or the computer industry can obtain a virtual monopoly over the manufacture of the new television sets that each American will have to buy to receive free, over-the-air television.

The Commission need not place itself in the position of selecting a single industry "winner." CFA/MAP urge the Commission to encourage the adherents of the CICATS and

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still be 160% of a CICATS box. *Id.* at Table 1.

ACATS standards to resolve their technological differences. With the combined know-how of the computer, consumer electronics and broadcast industries, it appears almost inconceivable that a solution cannot be found to convert interlaced transmissions to progressive and *vice versa*.

For such a conciliation process to be effective, the public must participate. The Commission must not tolerate replication of the ACATS process, which excluded public interest constituencies. Without the input of citizens, the debate will almost certainly devolve yet again into a fight over market share, rather than what is best for the public.

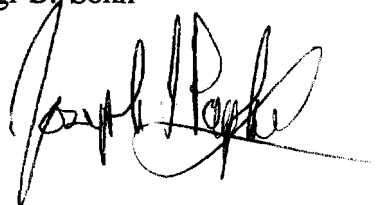
**CONCLUSION**

This proceeding, like many others the Commission is undertaking to implement the 1996 Telecommunications Act, is about the future. Thus, the Commission should avoid dwelling on the past. Adoption of the ACATS standard, while developed over many years with the sweat equity of a number of industries, would freeze technology in the 20th century. The CICATS progressive, base-line standard has the cost-effectiveness and the flexibility to bring the public into the 21st century and beyond.

Respectfully submitted,



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